

Where's the Gold?

Not only is gold beautiful, but it can also be super practical. It can be beaten into sheets 0.18 micrometers thick, drawn into wires 5 micrometers in diameter, and is inert to most acids and oxidants. Plus, it's a good conductor of heat and electricity, and forms stable, uniform nanoparticles.

Below are some of the uses of gold, but in order to read them, you have to decode the cipher. Each letter has been randomly substituted with another letter of the alphabet. The letter substitutions are the same for each word. Can you identify all the uses of gold? (Starting hint: N stands for C, and R stands for L)

YHZHRAM
NEKUX
NDUNHA VAHDVPHUVX
PHBDRX
XPDAVLCEUH NKANFKVX
HRHNVAKNDR NEUVDNVX
DAVKSKNKDR RHQX
AHSRHNVKJH NEDVKUQ KU XLDNH CHRPHVX

^{*} Answers are in the Teacher's Guide, available at www.acs.org/chemmmatters.org